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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jens Fennen

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EXAMINER

KHAN, AMINA S

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

06/29/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/574,913	<b>Applicant(s)</b> FENNEN, JENS	
	<b>Examiner</b> AMINA KHAN	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 6/16/2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to applicant's amendments filed on June 16, 2010.
2. Claims 1-16 are pending. Claims 15 and 16 are new. Claims 2 and 12 have been amended.
3. The objection to the specification is withdrawn in view of applicant's submission of a new abstract.
4. The 35 USC 112 second paragraph rejection of claim 2 is withdrawn in view of applicant's amendment to the claim.
5. Claims 1-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lauton et al. (US 6,251,414) in view of Maue (US 4,762,522) for the reasons set forth in the previous office action.
6. Claims 1-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lauton et al. (US 6,251,414) in view of Kritchevsky (US 2,158,627) for the reasons set forth in the previous office action.

***Specification***

7. The abstract of the disclosure is objected to because it is not a complete sentence. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lauton et al. (US 6,251,414) in view of Maue (US 4,762,522).

Lauton et al. teach aqueous formulations comprising 2-60% reductive saccharides having a dextrose equivalent of 10 to 100, specifically glucose, 2-75% dialdehydes that contain 2-8 carbon atoms, such as glutaraldehyde and includes pentanedial, which meets the claimed limitation of component a), and water to make up to 100%, wherein the formulations have 0.05 to 0.19 mol of the reductive saccharide per mol of glutaraldehyde (column 2, lines 1-45). Lauton et al. further teach the composition has a pH of 3.9 and is diluted to 1.5% (column 3, examples 1 and 2). Lauton et al. further teach treating pickled hides with the diluted formulation at 25°C and adjusting the pH to 4.0 with base (column 3, examples 1 and 2).

Lauton et al. do not teach 2.5-20% by weight of at least one water-soluble, optionally monoetherified polyoxaalkylene glycol having a molecular weight of more than 100 and not more than 2000, 0.1-15% by weight of the formulation based on the weight of the pelt, 0.05 to 0.19 mol of the saccharide and glycol per mol of dialdehyde and an initial pH of 2.3-3.6.

Maue, in the analogous art of treating hides and pelts, teaches that polyoxyethylene glycol when used in percentages of 0.5-10% provides humectant properties to treated hides (column 7, lines 9-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the formulations and methods of Lauton et al. by incorporating the polyoxyethylene glycol or polyoxypropylene as taught by Maue because Maue teaches the moisturizing benefits these compounds provide to hides and pelts when used in the instantly claimed percentages. It would have been further obvious to optimize the molecular weight of these compounds to the range instantly claimed as this range would determine the size of the molecule and effect the penetrability and retention into the pores of the hide or pelt and would directly impact the moisture level of the treated product.

It would have been obvious to optimize the amount of the composition used on the pelt to the range instantly claimed as this range would determine properties of the treated pelt as it goes to the tanning process. Lauton et al. clearly teach that pelts treated with the composition have the benefits of high shrinkage temperatures and have

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great results with respect to pretanning. These improved properties would be directly impacted by the quantity of the formulation applied to the pelt.

Regarding the proportion of saccharide and glycol per mol of dialdehyde, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize this parameter to the values instantly claimed again to optimize the pretanning and moisturizing properties of the pelts. Lauton et al. recognize utilizing formulations have 0.05 to 0.19 mol of the reductive saccharide per mol of glutaraldehyde, optimizing the saccharide and glycol to this value to optimize moisturizing of the hide would involve routine skill in the art. Furthermore, Maue teaches the instantly claimed proportion of glycol is effective in providing humectant properties to the treated pelt and Lauton et al. teach the instantly claimed proportion of the other ingredients.

Regarding the initial pH limitation of 2.3 to 3.6, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize this parameter to the values instantly claimed again to impact penetration of the composition into the pores of the pelt while maintaining the integrity of the tissue. Lauton et al. recognize that the pH needs to be adjusted to a level of 4 by the addition of a base to increase the pH. Since the only pH recited is in the examples and is 3.9, it is presumed that pH values in this range may be suitable for initial treatment and would vary with the addition of different quantities of ingredients. A reference is not limited to the working examples, see *In re Fracalossi*, 215 USPQ 569 (CCPA 1982). A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close

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enough that one skilled in the art would have expected them to have the same properties, see *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05I.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980).

10. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lauton et al. (US 6,251,414) in view of Kritchevsky (US 2,158,627).

Lauton et al. are relied upon as described in paragraph 7.

Lauton et al. do not teach 2.5-20% by weight of at least one water-soluble, optionally monoetherified polyoxaalkylene glycol having a molecular weight of more than 100 and not more than 2000, 0.1-15% by weight of the formulation based on the weight of the pelt, and an initial pH of 2.3-3.6.

Kritchevsky, in the analogous art of treating hides and pelts, teaches that diethylene glycol mono-ethyl ether (molecular weight 134) provides improved softness,

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pliability and tensile strength to treated hides (page 1, left column, lines 45-50; page 1, right column, lines 5-25, page 2, left column, lines 3-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the formulations and methods of Lauton et al. by incorporating the polyoxyethylene glycol or polyoxypropylene as taught by Kritchevsky because Kritchevsky teaches the moisturizing benefits these compounds provide to hides and pelts when used in the instantly claimed percentages. Optimization of the proportion of these compounds used in the formulations would impact the softness, pliability and tensile strength to treated hides.

It would have been obvious to optimize the amount of the composition used on the pelt to the range instantly claimed as this range would determine properties of the treated pelt as it goes to the tanning process. Lauton et al. clearly teach that pelts treated with the composition have the benefits of high shrinkage temperatures and have great results with respect to pretanning. These improved properties would be directly impacted by the quantity of the formulation applied to the pelt.

Regarding the proportion of saccharide and glycol per mol of dialdehyde, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize this parameter to the values instantly claimed again to optimize the pretanning and moisturizing properties of the pelts. Lauton et al. recognize utilizing formulations have 0.05 to 0.19 mol of the reductive saccharide per mol of glutaraldehyde, optimizing the saccharide and glycol to this value to optimize moisturizing of the hide would involve routine skill in the art.



Regarding the initial pH limitation of 2.3 to 3.6, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize this parameter to the values instantly claimed again to impact penetration of the composition into the pores of the pelt while maintaining the integrity of the tissue. Lauton et al. recognize that the pH needs to be adjusted to a level of 4 by the addition of a base to increase the pH. Since the only pH recited is in the examples and is 3.9, it is presumed that pH values in this range may be suitable for initial treatment and would vary with the addition of different quantities of ingredients. A reference is not limited to the working examples, see *In re Fracalossi*, 215 USPQ 569 (CCPA 1982). A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, see *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05I.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980).

### ***Response to Arguments***

11. Applicant's arguments filed regarding Lauton et al. in view of Maue or Kritchevsky have been fully considered but they are not persuasive. The applicant's argue that the penetration of aldehydes by polyoxaalkylene glycol humectants cannot be improved since no penetration problems based on size or electrostatic interactions exist, rather only reducing the reactivity of the aldehydes can cause such an improvement. Applicants have not provided experimental data to support such arguments. Applicants' arguments are conclusory statements not supported by factual evidence, see *In re Lindner*, 457 F.2d 506, 173 USPQ 356 (CCPA 1972). It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, see *In re Kerkhoven*, 626 F.2d 846,850,205 USPQ 1069, 1072 (CCPA 1980). Furthermore, Kritchevsky teaches that these polyoxaalkylene glycol compounds improve leather fluffiness, softness, silkiness, pliability and tensile strength so one of ordinary skill in the art would have been motivated to add them to the compositions of Lauton et al. for these benefits.

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMINA KHAN whose telephone number is (571)272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/  
Primary Examiner, Art Unit 1796

/Amina Khan/  
Examiner, Art Unit 1796  
June 24, 2010